AMENDMENTS TO THE CLAIMS

This Claim Listing replaces all prior listings of the claims in the above-referenced matter:

1. (Canceled)

2. (Currently amended) A method of inhibiting hematopoiesis in a subject comprising downregulating an expression or activity of caspase-8 in the subject ~~The method of claim 1~~, wherein said downregulating said expression or activity of caspase-8 is effected by: (a) ~~a molecule~~ an antibody, an antibody fragment, z-VAD-fmk, IEDT-fmk, or DEVD-fmk which binds caspase-8; (b) an enzyme which cleaves caspase-8; (c) an antisense polynucleotide capable of specifically hybridizing with an mRNA transcript encoding caspase-8 ; (d) a ribozyme which specifically cleaves transcripts encoding caspase-8; (e) a small interfering RNA (siRNA) molecule which specifically cleaves caspase-8 transcripts ; (f) a non-functional analogue of at least a catalytic or binding portion of caspase-8 (g) ~~a molecule which prevents caspase-8 activation or substrate binding. (h)~~ a vector for inducing and/or enhancing the endogenous production of an endogenous inhibitor of caspase-8; and/or (h~~i~~) a vector for inhibiting the endogenous production of endogenous caspase-8.

3. (Original) The method of claim 2, wherein a sequence of said antisense polynucleotide is set forth by SEQ ID NO: 16.

4. (Canceled)

5. (Currently amended) The method of claim 2 [[4]], wherein said antibody fragment is a Fab or a ScFv fragment.

6. (Canceled)

7. (Original) The method of claim 2, wherein a sequence of said small interfering RNA (siRNA) molecule is set forth by SEQ ID NO : 15.

8. (Currently amended) A method of inhibiting hematopoiesis in a subject, comprising downregulating an expression or activity of at least one polypeptide

participating in the caspase-8 signaling pathway in the subject, thereby inhibiting hematopoiesis therein, wherein when the polypeptide is caspase-8, the downregulating is achieved by the method according to claim 2.

9. (Currently amended) The method of claim 8, wherein said at least one polypeptide is selected from the group consisting of caspase-3, caspase-4, caspase-6, caspase-7, caspase-9 and caspase-10 ~~CASP3, CASP4, CASP6, CASP7, CASP9 and CASP10~~.

10. (Currently amended) A method of treating a disorder characterized by hyperproliferation of hematopoeitic cells, comprising downregulating an expression or activity of caspase-8 in the hematopoeitic cells of a subject having the disorder, wherein the downregulating is achieved according to the method of claim 2, thereby treating said disorder characterized by hyperproliferation of said hematopoeitic cells.

11. (Original) The method of claim 10, wherein said disorder is selected from the group consisting of acute myelogenous leukemia, acute molymphocytic leukemia, acute lymphocytic leukemia, acute prolymphocytic leukemia, acute lymphoblastic leukemia, chronic lymphocytic leukemia, chronic myeloid leukemia and moldering leukemia.

12. (Canceled)

13. (Currently amended) The method of claim 10 ~~12~~, wherein a sequence of said antisense polynucleotide is set forth by SEQ ID NO: 16.

14. (Currently amended) The method of claim 10 ~~12~~, wherein an antibody or antibody fragment ~~said molecule which~~ binds caspase-8 ~~is an antibody or antibody fragment~~.

15. (Original) The method of claim 14, wherein said antibody fragment is a Fab or a ScFv fragment.

16. (Currently amended) The method of claim 10 ~~12~~, wherein a caspase-8 inhibitor selected from the group consisting of z-VAD-fmk, IEDT-fmk and DEVD-fmk ~~said molecule which~~ binds caspase-8 ~~is a caspase-8 inhibitor selected from the group consisting of z-VAD-fmk, IEDT-fmk and DEVD-fmk~~.

17. (Currently amended) The method of claim 10 ~~12~~, wherein a sequence of said small interfering RNA (siRNA) molecule is set forth by SEQ ID NO : 15.

18. (Original) The method of claim 10, further comprising a chemotherapy.

19. (Original) The method of claim 10, further comprising a radiotherapy.

20. (Original) The method of claim 10, further comprising exposing said hematopoietic cells to one or more growth stimulating factors.

21. (Original) The method of claim 10, further comprising bone marrow transplantation.

22. (Original) The method of claim 21, wherein said bone marrow transplantation is autologous.

23. (Original) The method of claim 21, wherein said bone marrow transplantation is allogeneic.

24. (Currently amended) A method of generating an hematopoietic cell population suitable for bone marrow replacement therapy, comprising: (a) isolating hematopoietic ~~hematopietic~~ cells from a subject; and (b) ~~exposing said hematoietic cells to a molecule capable of~~ downregulating an expression or activity of caspase-8 in said hematopoietic cells using the method according to claim 2, thereby generating an hematopoietic cell population suitable for the bone marrow replacement therapy.

25. (Canceled)

26. (Currently amended) The method of claim 24 ~~25~~, wherein a sequence of said antisense polynucleotide is set forth by SEQ ID NO: 16.

27. (Currently amended) The method of claim 24 ~~25~~, wherein an antibody or an antibody fragment ~~said molecule which~~ binds caspase-8 ~~is an antibody or an antibody fragment~~.

28. (Original) The method of claim 27, wherein said antibody fragment is a Fab or a ScFv fragment.

29. (Currently amended) The method of claim 24 ~~25~~, wherein a caspase-8 inhibitor selected from the group consisting of z-VAD-fmk, IEDT-fmk and DEVD-fmk ~~said molecule which~~ binds caspase-8 ~~is a caspase-8 inhibitor selected from the group consisting of z-VAD-fmk, IEDT-fmk and DEVD-fmk~~.

30. (Currently amended) The method of claim 24 ~~25~~, wherein a sequence of said small interfering RNA (siRNA) molecule is set forth by SEQ ID NO : 15.

31. (Currently amended) A method of treating a disorder characterized by hyperproliferation of hematopoietic ~~hematopoeitic~~ cells, comprising: (a) isolating the hematopoietic cells from a donor; (b) ~~exposing said hematopoietic cells to a molecule capable of~~ downregulating an expression or activity of caspase-8 in said hematopoietic cells according to the method of claim 2; and (c) transplanting said hematopoietic cells into a recipient, thereby treating a disorder characterized by hyperproliferation of hematopoietic ~~hematopoeitic~~ cells.

32. (Canceled)

33. (Currently amended) The method of claim 31 ~~32~~, wherein a sequence of said antisense polynucleotide is set forth by SEQ ID NO: 16.

34. (Currently amended) The method of claim 31 ~~32~~, wherein an antibody or an antibody fragment ~~said molecule which~~ binds caspase-8 ~~is an antibody or an antibody fragment~~.

35. (Original) The method of claim 34, wherein said antibody fragment is a Fab or a ScFv fragment.

36. (Currently amended) The method of claim 31 ~~32~~, wherein a caspase-8 inhibitor selected from the group consisting of z-VAD-fmk, IEDT-fmk and DEVD-fmk ~~said molecule which~~ binds caspase-8 ~~is a caspase-8 inhibitor selected from the group consisting of z-VAD-fmk, IEDT-fmk and DEVD-fmk~~.

37. (Currently amended) The method of claim 31 ~~32~~, wherein a sequence of said small interfering RNA (siRNA) molecule is set forth by SEQ ID NO : 15.

38. (Original) The method of claim 31, wherein said donor is said recipient.

39. (Original) The method of claim 31, wherein said donor is allogeneic to said recipient.

40. (Original) The method of claim 31, wherein said disorder is selected from the group consisting of acute myelogenous leukemia, acute molymphocytic leukemia, acute lymphocytic leukemia, acute prolymphocytic leukemia, acute lymphoblastic leukemia, chronic lymphocytic leukemia, chronic myeloid leukemia and moldering leukemia.

41. (Currently amended) The method of claim 31, wherein step (b) further comprises ~~comprising~~ exposing said hematopoietic cells to one or more growth stimulating factors.

42. (Currently amended) An article of manufacture ~~article of manufacture~~ comprising packaging material and a pharmaceutical composition identified for use in modulating hematopoiesis being contained within the packaging material, said pharmaceutical composition including, as an active ingredient, (a) an antibody, an antibody fragment, z-VAD-fmk, IEDT-fmk, or DEVD-fmk which binds caspase-8; (b) an enzyme which cleaves caspase-8; (c) an antisense polynucleotide capable of specifically hybridizing with an mRNA transcript encoding caspase-8 ; (d) a ribozyme which specifically cleaves transcripts encoding caspase-8; (e) a small interfering RNA (siRNA) molecule which specifically cleaves caspase-8 transcripts ; (f) a non-functional analogue of at least a catalytic or binding portion of caspase-8 (g) a vector for inducing and/or enhancing the endogenous production of an endogenous inhibitor of caspase-8; and/or (h) a vector for inhibiting the

endogenous production of endogenous caspase-8 ~~an agent capable of modifying an activity or an expression of caspase-8 in a subject~~ and a pharmaceutically acceptable carrier.

43. (Original) The article of manufacture of claim 42, wherein said agent is capable of at least partially inhibiting said expression or activity of said caspase-8.

44. (Canceled)

45. (Currently amended) The use of a downregulator of an expression or activity of caspase-8 in the manufacture of a medicament for the inhibition of hematopoiesis, wherein the downregulator is an agent according to claim 42.

46. (Currently amended) The use of a downregulator of an expression or activity of caspase-8 for treating a disorder characterized by hyperproliferation of hematopoietic cells, wherein the downregulator is an agent according to claim 42.

47. (Original) The use according to claim 46, wherein said disorder is selected from the group consisting of acute myelogenous leukemia, acute molymphocytic leukemia, acute lymphocytic leukemia, acute prolymphocytic leukemia, acute lymphoblastic leukemia, chronic lymphocytic leukemia, chronic myeloid leukemia and moldering leukemia.

48. (Canceled)

49. (Currently amended) The use according to either one of claims 45 or 46 ~~of claim 48~~, wherein a sequence of said antisense polynucleotide is set forth by SEQ ID NO: 16.

50. (Currently amended) The use of according to either one of claims 45 or 46 ~~of claim 48~~, wherein an antibody or antibody fragment ~~said molecule which~~ binds caspase-8 ~~is an antibody or antibody fragment~~.

51. (Original) The use of claim 50, wherein said antibody fragment is a Fab or a ScFv fragment.

52. (Currently amended) The use according to either one of claims 45 or 46 ~~of claim 48~~, wherein a caspase-8 inhibitor selected from the group consisting of z-VAD-fmk, IEDT-fmk and DEVD-fmk ~~said molecule which~~ binds caspase-8 ~~is a caspase-8 inhibitor selected from the group consisting of z-VAD-fmk, IEDT-fmk and DEVD-fmk~~.

53. (Currently amended) The use of according to either one of claims 45 or 46 ~~of claim 48~~, wherein a sequence of said small interfering RNA (siRNA) molecule is set forth by SEQ ID NO : 15.

54. (Original) The use of claims 45 or 46, further comprising a chemotherapy.

55. (Original) The use of claims 45 or 46, further comprising a radiotherapy.

56. (Currently amended) The use of either one of claims 45 or 46, further comprising exposing said hematopoietic cells to one or more growth stimulating factors.

57. (Currently amended) The use of either one of claims 45 or 46, further comprising bone marrow transplantation.

58. (Original) The use of claim 57, wherein said bone marrow transplantation is autologous.

59. (Original) The use of claim 57, wherein said bone marrow transplantation is allogeneic.

60. (Currently amended) The use of a downregulator of at least one polypeptide participating in the caspase-8 signaling pathway in the manufacture of a medicament for the treatment of a disorder characterized by hyperproliferation of hematopoietic ~~hematopoeitic~~ cells, wherein when the polypeptide is caspase-8, the downregulator is the active ingredient according to claim 42.

61. (Original) The use of claim 60, wherein said disorder is selected from the group consisting of acute myelogenous leukemia, acute molymphocytic leukemia,

acute lymphocytic leukemia, acute prolymphocytic leukemia, acute lymphoblastic leukemia, chronic lymphocytic leukemia, chronic myeloid leukemia and moldering leukemia.

62. (Currently amended) The use of claim 60, wherein said at least one polypeptide is selected from the group consisting of caspase-3, caspase-4, caspase-6, caspase-7, caspase-9 and caspase-10 ~~CASP3, CASP4, CASP6, CASP7, CASP9 and CASP10~~.